



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/519,875 03/06/00 JASPER

J FM-257643-P- *John*

000909

MMC2/0919

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EXAMINER

KIM, P

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 09/19/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/519,875

Applicant(s)

JASPER ET AL.

Examiner

Peter B Kim

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 27 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 13-24 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-12 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. This application contains claims 13-24 and 26 drawn to an invention nonelected with traverse in Paper No. 3. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Information Disclosure Statement

2. In the form PTO-1449, EP0466445 with the date 10/1992 is listed. However, the document is not included. Instead, EP0467445 with the date 01/1992 is found but not listed in PTO-1449. PTO-1449 with correct listing of the documents and dates is requested.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-12 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Loopstra (6,208,407).

Loopstra discloses in the abstract and Figures 1-7, a lithographic projection apparatus with a radiation system (LA), a first object table (MT) with a mask and a second object table (WT) with a substrate and a reference surface, a projection system for imaging an irradiated portion of the mask onto a substrate, a positioning system (Figure 3) a height mapping system (Fig. 2-8), a position measuring system and a controller.

5. Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Loopstra et al. (WO 99/28790).

WO 99/28790 discloses in the abstract, Figures 1 and 5-8 and pages 10, 11 and 19-24, a lithographic projection apparatus with a radiation system (LA), a first object table (MT) with a mask and a second object table (WT) with a substrate and a reference surface, a projection system for imaging an irradiated portion of the mask onto a substrate, a height mapping system (Fig. 5-8), a position measuring system and a controller.

6. Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Nielsen et al. (Nielsen) (US 2001/0013936). ✓

Nielsen discloses in the abstract, Figures 1 and 2 and pages 1 and 2, a lithographic projection apparatus with a radiation system (101), a first object table with a mask and a second object table with a substrate (110) and a reference surface, a projection system for imaging an irradiated portion of the mask onto a substrate, a height mapping system, a position measuring system and a controller.

7. Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Sakamoto et al. (Sakamoto) (4,999,669).

Sakamoto discloses in the abstract and Figures 1, a lithographic projection apparatus with a radiation system, a first object table with a mask and a second object table with a substrate (W) and a reference surface, a projection system for imaging an irradiated portion of the mask onto a substrate, a height mapping system, a position measuring system and a controller.

8. Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Ota et al. (Ota) (5,416,562).

Ota discloses in the abstract and Figures 1, a lithographic projection apparatus with a radiation system (IL), a first object table (26) with a mask and a second object table (35) with a substrate and a reference surface, a projection system for imaging an irradiated portion of the mask onto a substrate, a height mapping system, a position measuring system and a controller.

9. Claim 25 is rejected under 35 U.S.C. 102(a) as being anticipated by Ebinuma et al. (Ebinuma) (5,917,580).

Ebinuma discloses in the abstract and Figures 1 and 4, a lithographic projection apparatus with a radiation system, a first object table (1) with a mask and a second object table (3) with a substrate and a reference surface, a projection system for imaging an irradiated portion of the mask onto a substrate, a height mapping system, a position measuring system and a controller.

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Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loopstra et al. (Loopstra) (WO 99/28790) in view of Loopstra et al. (Loopstra) (US 5,969,441).

WO 99/28790 discloses in the abstract, Figures 1 and 5-8 and pages 10, 11 and 19-24, a lithographic projection apparatus with a radiation system (LA), a first object table (MT) with a mask and a second object table (WT) with a substrate and a reference surface, a projection system for imaging an irradiated portion of the mask onto a substrate, a height mapping system (Fig. 5-8), a position measuring system and a controller. However, WO 99/28790 does not disclose a positioning system for moving the second table from the exposure station to the measuring station. (US 5,969,441) discloses in Figures 1, 2 and 3, the positioning system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the positioning system of (US 5,969,441) to the invention of WO 99/28790 in order to increase the throughput by having an exposure station and a measuring station while measuring accurate height.

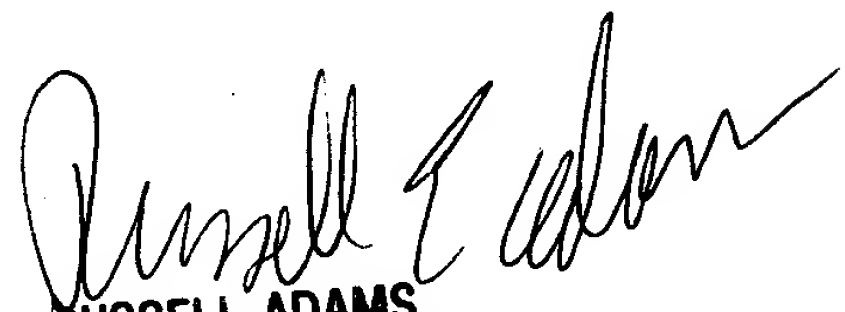
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Kim whose telephone number is (703) 305-0105. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams, can be reached on (703) 308-2847. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

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09/17/01


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